SCF_IRD_FPRS_LINKS

IRD	IRD_segment	IRD_text	IRD_clarification	FPRS	L3_type	L3_segment	L3_text	L3_clarification
SCF-0020	NONE	The SCF interface platform shall supply the DCE client and have an I/O communication port and the ability to run TCP/IP software for communication to the ECS.	Requirement for DCE is derived via NASA direction.	ESN-1340	functional	CSMS	The ESN shall provide support for TCP/IP communications protocols and services to external interfaces as required by the IRDs.	
SCF-0010	NONE	The SCF interface shall consist of an ESDIS approved computing platform that shall have a C compiler. To access FORTRAN routines in the ECS Toolkits, the platform shall also have a FORTRAN compiler.		PGS-0602	functional	SDPS	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).	
SCF-0025	NONE	The SCF interface platform shall provide one of the following levels of security for interoperation with ECS: a. Kerberized authentication for bi-directional file transfers. b. User of Distributed Computing Environment (DCE) for authentication of users, authorization of users for access to services such as remote file access, and provision for integrity of data being transferred.	Kerberos client and network utilities are required of SCFs. DCE client is optional for SCFs.	ESN-1400	functional	CSMS		
SCF-0030	NONE	The SCF interface platform shall have adequate computing resources for the storage, compilation, linking, and execution of ECS supplied software resident on the platform.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV

SCF-0040	SDPS	The ECS shall have the capability to send to the SCFs the Data Production Software Specification Requirements describing what is required for completing the Initial Data Production Software Specifications.		EOSD1750	interface	CSMS	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is):a.Algorithmsb.Software fixesc.Instrument calibration datad.Integration support requestse.Metadata for Special Products archivingf.Data transfer requests (inventories, directories, and browse)g.Data Quality/Instrument assessmenth.Instrument operations informationi.Ancillary data	
SCF-0050	SDPS	The ECS shall have the capability to accept from the SCF a set of Initial Data Production Software Specifications that provides the software design description and operations concepts of the data production software to be delivered and estimates storage and processing resources required for the data production software to operate successfully in the ECS operational environment. These specifications are described in the Data Production Software Specification Requirements.		EOSD1750	interface	CSMS	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is):a.Algorithmsb.Software fixesc.Instrument calibration datad.Integration support requestse.Metadata for Special Products archivingf.Data transfer requests (inventories, directories, and browse)g.Data Quality/Instrument assessmenth.Instrument operations informationi.Ancillary data	
SCF-0060	SDPS	The ECS shall have the capability to provide to the SCF the Toolkit Delivery and Update Package. This package includes the PGS toolkit which supplies tools for the emulation of the ECS production environment and contains a ECS-standardized software routines to aid in science data production software development.		PGS-1030	functional	SDPS	The PGS shall provide a toolkit to the SCF containing versions of the routines specified in requirements PGS-0970 to PGS-1020.	

SCF-0070	SDPS	The ECS shall have the capability to provide Integration and Test Specifications to the scientist at the SCF. These specifications are defined by the Data Processing Focus Team. These specifications are implemented in the Data Production Software Delivery Package and support smooth integration of the data production software into the ECS production environment.		PGS-0640	functional	SDPS	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum :a.Algorithm identificationb.Algorithm source codec.List of required inputsd.Processing dependenciese.Test data and proceduresf.Algorithm documentation	Deleted 1426 L2 trace. DV
SCF-0080	SDPS	The ECS shall have the capability to provide an Interactive Session Dialog with the SCF. This dialog, to aid integration and test of the data production software into the ECS production environment, shall support, at a minimum, general communications between the ECS and the SCF that include logins, mail messages, status reports, test coordination, test execution scripts, and solutions to minor problems.		EOSD1750	interface	CSMS	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is):a.Algorithmsb.Software fixesc.Instrument calibration datad.Integration support requestse.Metadata for Special Products archivingf.Data transfer requests (inventories, directories, and browse)g.Data Quality/Instrument assessmenth.Instrument operations informationi.Ancillary data	
				EOSD1760	interface	CSMS	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is):a.Software Problem Reportsb.Documentationc. Metadata (copies of inventories)d.Browse datae.Archived dataf.Accounting information	
				PGS-0860	functional	SDPS	The PGS shall have the capability to schedule and coordinate algorithm and calibration coefficient test time in the test environment with the appropriate SCF.	

SCF-0090	SDPS	The SCF shall have the capability to provide ECS with the Data Production Software Delivery Package with "Required Items For Delivery" as specified by the Science User's Guide and Operations Procedure Handbook for the ECS Project.		PGS-0640	functional	SDPS	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum :a.Algorithm identificationb.Algorithm source codec.List of required inputsd.Processing dependenciese.Test data and proceduresf.Algorithm documentation	Deleted 1426 L2 trace. DV
SCF-0100	SDPS	The ECS shall have the capability to forward Test Products to the SCF. These products generated by the science software at the ECS will require the review of the scientist at the SCF who submitted the software.		PGS-0900	functional	SDPS	The PGS shall send test products to the SCF for analysis. These shall contain the results of algorithm testing and shall contain the following information at a minimum:a.Algorithm identificationb.Test time(s)c.Processor identificationd.Test results	
				PGS-0605	functional	SDPS	The PGS shall process pre-launch test data and provide test data product samples for user verification.	
SCF-0110	SDPS	The ECS shall have the capability to receive Test Product Reviews from the SCF. These reviews shall include the comments and recommendations of the scientist at the SCF who has reviewed the Test Products.		PGS-0640	functional	SDPS	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum :a.Algorithm identificationb.Algorithm source codec.List of required inputsd.Processing dependenciese.Test data and proceduresf.Algorithm documentation	Deleted 1426 L2 trace. DV
SCF-0120	SDPS	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.		PGS-0640	functional	SDPS	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum :a.Algorithm identificationb.Algorithm source codec.List of required inputsd.Processing dependenciese.Test data and proceduresf.Algorithm documentation	Deleted 1426 L2 trace. DV

SCF-0130	SDPS	The ECS shall have the capability to receive Special Products from the SCF. These shall include L1 - L4 Special Products.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0140	SDPS	The ECS shall have the capability to receive Metadata, related to Special Products, from the SCF.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0150	SDPS	The ECS shall have the capability to receive Ancillary Data, related to Special Products, from the SCF.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0160	SDPS	The ECS shall have the capability to receive Calibration Data, related to Special Products, from the SCF.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0170	SDPS	The ECS shall have the capability to receive Correlative Data, related to Special Products, from the SCF.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0180	SDPS	The ECS shall have the capability to receive Documents from the SCF that are related to Special Products and deemed necessary by the contributing scientist.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV
SCF-0190	SDPS	The ECS shall have the capability to receive Data Production Software, related to Special Products, from the SCF.		DADS0190	functional	SDPS	Each DADS shall receive from the SCF, at a minimum, the following:a.Special products (L1-L4)b.Metadatac.Ancillary datad.Calibration datae.Correlative dataf.Documentsg.Algorithms	Deleted 1427 L2 trace. DV

SCF-0200	SDPS	The ECS shall have the capability to receive from the SCF a QA Notification Specification. This specification, submitted by the scientist at the SCF, describes the conditions under which data should be forwarded to the SCF for QA.		PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	
SCF-0210	SDPS	The ECS shall have the capability to send a Data Quality Request Notification to the SCF. This notification is sent when QA notification criteria are met during routine ECS processing. The notification states the data product and the time by which a notification, and optionally data, must be evaluated and returned to the ECS for inclusion as an update to the product metadata.		PGS-0860	functional	SDPS	The PGS shall have the capability to schedule and coordinate algorithm and calibration coefficient test time in the test environment with the appropriate SCF.	
				PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	
SCF-0220	SDPS	The ECS shall have the capability to receive from the SCF a Request for Data to QA. This request may be a standing request specified in the QA Notification Specification and may include the data product specified in the Data Quality Request Notification, or other data required by the scientist to QA the data product.		PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	
SCF-0230	SDPS	The ECS shall have the capability to send Data Delivered for QA to the SCF. This data includes the data requested by the scientist needed for the QA of data products.		PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	

SCF-0240	SDPS	The ECS shall have the capability to receive an On Time QA from the SCF. This shall consist of the science QA codes describing the results of product QA and any further instructions to the ECS. The ECS shall accept the On Time QA when it is received within the time-out period specified in the Data Quality Request Notification. ECS shall accept post-time-out QA updates as Metadata Updates as specified by Requirement SCF-0250.		SDPS0050		SDPS	The SDPS shall archive, manage, quality check, and account for the generated data products, and distribute the data products to the appropriate destinations as required.	
				SDPS0091		SDPS	The SDPS shall receive a quality report that is generated and transmitted by the PIs or the other science users, and appended to the data products being archived by the SDPS.	
				PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	
SCF-0250	SDPS	The ECS shall have the capability to receive Metadata Updates from the SCF. These shall include the science QA codes and optionally a report describing the results of product QA and any further instructions to the ECS. The ECS shall only accept Metadata Updates when they are received after the time allotment specified in the Data Quality Request Notification.		PGS-1130	functional	SDPS	The PGS shall receive product QA from the SCF which shall describe the results of the scientistÕs product quality review at an SCF. Product QA shall contain the following information at a minimum:a.Identification of productb.QA resultsc.Product storage and processing instructions	
				DADS0010	functional	SDPS	Each DADS shall receive updated metadata for products that have been QA'd.	

SCF-0260	SDPS	The ECS shall have the capability to make a Reprocessing Request Template available to the SCF. This template will be used by the scientist at the SCF to prepare a Reprocessing Request.		EOSD1720	interface	SDPS	ECS elements shall receive from the ECS user community the following types of data requests at a minimum:a.Data Acquisition Requestsb.Data Distribution Requestsc.Reprocessing Requests	
SCF-0270	SDPS	The ECS shall have the capability to receive a Reprocessing Request from the SCF. This request, at a minimum, contains the following, a list of all the products to be generated, the version numbers of the science software and calibration coefficients, a list of all ancillary data, and data start and stop times.		EOSD1720	interface	SDPS	ECS elements shall receive from the ECS user community the following types of data requests at a minimum:a.Data Acquisition Requestsb.Data Distribution Requestsc.Reprocessing Requests	
SCF-0280	SDPS	The ECS shall have the capability to supply a Reprocessing Status to the SCF. This status that includes the reprocessing schedule informs the scientist at the SCF the status of his reprocessing request and provides notification upon completion of the reprocessing by the ECS.		IMS-1050	functional	SDPS	The IMS shall provide the capability to notify the user community if data has been reprocessed.	
SCF-0290	SDPS	The ECS shall have the capability to send the Local Data Access Services Delivery Package to the SCF. This package shall provide management of, search of, and access to local metadata.		EOSD0502	functional	FOS/SDPS	ECS shall provide an integrated set of toolkits consisting of software tools for each ECS element.	
				IMS-1440	security	SDPS	The Virtual IMS Information Management software shall provide local SCF data base administration utilities for, at a minimum:a.Modifying the data base schemab.Performance monitoringc.Administration of user access controld.Data base backupe.Data base recovery	VIMS obsoleted by new architecture
SCF-0300	NONE	The SCF shall have the capability to install and make operational in the SCF environment all COTS products that are required by Local Data Access Services.		IMS-1400	interface	SDPS	The Virtual IMS Information Management software shall operate with a local data base using an ECS supported DBMS provided by the SCF, thereby facilitating the process of importation of the local data base into the ECS.	VIMS obsoleted by new architecture

SCF-0310	SDPS	The ECS shall have the capability to receive Calibration Coefficient Requests from the SCF. The current or past calibration coefficients used in processing of instrument data may be requested by the scientist from the ECS.		DADS2380	functional	SDPS	Each DADS shall send to the SCF, at a minimum, the following:a.L0-L4b.Special products (L1-L4)c.Metadatad.Ancillary datae.Calibration dataf.Correlative datag.Documentsh.Algorithms	
SCF-0320	SDPS	The ECS shall be capable of sending to the SCF Calibration Coefficients. These shall include the calibration coefficients requested by the scientist at the SCF in the Calibration Coefficient Request.		DADS2380	functional	SDPS	Each DADS shall send to the SCF, at a minimum, the following:a.L0-L4b.Special products (L1-L4)c.Metadatad.Ancillary datae.Calibration dataf.Correlative datag.Documentsh.Algorithms	
SCF-0330	SDPS	The ECS shall have the capability to receive a Calibration Coefficient Update Package from the SCF. This package shall include a calibration coefficient file and other documentation needed to implement the updated coefficients.		EOSD1750	interface	CSMS	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is):a.Algorithmsb.Software fixesc.Instrument calibration datad.Integration support requestse.Metadata for Special Products archivingf.Data transfer requests (inventories, directories, and browse)g.Data Quality/Instrument assessmenth.Instrument operations informationi.Ancillary data	
				PGS-0610	functional	SDPS	The PGS shall accept from the SCFs new or modißed calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum:a.Identification of coefficient data setb.Calibration coefficients valuesc.Author and version numberd.Identification of related processing algorithme.Start and stop date/time of applicabilityf.Date and timeg.SCF identificationh.Reasons for update	
SCF-0340	SDPS	The SCF shall have the capability to send a Request for Processing Status to the ECS for the status of SCF-requested data processing.		IMS-1330	functional	SDPS	The IMS shall provide the capability to accept, from data processing requesters, data processing status requests, retrieve the request status, and display the status to the requester.	

SCF-0350	SDPS	The ECS shall have the capability to provide SCF with the Processing Status of SCF-requested data processing.		IMS-1330	functional	SDPS	The IMS shall provide the capability to accept, from data processing requesters, data processing status requests, retrieve the request status, and display the status to the requester.	
SCF-0360	SDPS	The SCF shall have the capability to send a Request for Resource Usage to the ECS for information about ECS resource usage during SCF-requested data processing.		PGS-0650	functional	SDPS	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a.Languageb.Operational impacts (e.g., algorithm software size, required resources)c.Algorithm documentationd.Data handling standards as appropriatee.Units and models usedf.Operational compatibilityg.Required metadata outputs	
				IMS-1660	interface	SDPS	The IMS shall provide to the SMC a full and complete history of all IMS resources used by science investigators including, at a minimum:a.CPU utilizationb.Amount of user storagec.Connect timed.Session histories	Deleted 1472 L2 trace. DV
SCF-0370	SDPS	The ECS shall have the capability to provide SCF with information about ECS Resource Usage during SCF-requested data processing.		PGS-0650	functional	SDPS	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum:a.Languageb.Operational impacts (e.g., algorithm software size, required resources)c.Algorithm documentationd.Data handling standards as appropriatee.Units and models usedf.Operational compatibilityg.Required metadata outputs	
				IMS-1660	interface	SDPS	The IMS shall provide to the SMC a full and complete history of all IMS resources used by science investigators including, at a minimum:a.CPU utilizationb.Amount of user storagec.Connect timed.Session histories	Deleted 1472 L2 trace. DV
SCF-0380	SDPS	The SCF shall have the capability to send a Request for Product History (including the algorithms used) to the ECS for the history of data products that the SCF specifies.		IMS-0545	functional	SDPS	The IMS shall provide the capability to search a productÕs processing history.	

SCF-0390	SDPS	The ECS shall have the capability to provide SCF with the Product History of data products that the SCF specifies.		IMS-0545	functional	SDPS	The IMS shall provide the capability to search a productÕs processing history.	